

REMARKS

In the Office Action, claims 1-3, 5-21, 26, 31, and 32 were rejected under 35 U.S.C. 112, first paragraph, for failing to comply with the written description requirement; claim 20 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite; and claims 1-4, 6-15, 17-21, and 25-32 were rejected under 35 U.S.C. 103.

I. 35 U.S.C. 112, First Paragraph

As recited in claim 1, plastic containers produced using the method of the present invention are stable in an unfilled state and, thus, may be stored in atmospheric conditions without significant loss of the container's barrier "capacity." The oxygen-scavenging properties of the plastic container are activated after filling the container with an aqueous fluid. In contrast, conventional oxygen-scavenging plastic containers are not stable during unfilled storage and typically require costly storage techniques (e.g., storage under nitrogen gas, dessication, and/or refrigeration) to prevent the oxygen-scavenging properties of the unfilled containers from being consumed.

Claims 1-3, 5-21, 26, 31, and 32 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. In particular, the Office Action at page 2 asserts that certain aspects regarding the stability of the preblend are disclosed, but that there is no disclosure regarding the stability of the container itself. Applicants respectfully submit that the present application, as originally filed, provides more than adequate support for the stability of the container during unfilled storage.

Support for container stability during unfilled storage can be found throughout the present application, including, for example, at paragraphs 28, 38, and 98-100. Unlike Collette, the application does not teach that special precautions such as, for example, storage of the containers under nitrogen, desiccation, and/or refrigeration are required to obtain a suitable shelf life for the unfilled containers. Instead, the application teaches that the container has a long shelf life prior to filling because oxygen-scavenging properties of the container are initiated after the container is filled. Paragraph 98 states that "because oxygen barrier properties are not activated until a container is filled, the present method

allows the manufacture of a container having excellent barrier and esthetic properties long after the container has been made.” (Emphasis added.) Likewise, in paragraph 38, the application states that “[a]nother important feature of the invention is the preparation of a container from a preform of the invention wherein the oxygen scavenging capabilities of the barrier layer are not activated until the container is filled with an aqueous fluid. Accordingly, the container has a long shelf life prior to filling....” (Emphasis added.)

Thus, the application as filed conveys to one skilled in the art that the inventors had possession of plastic containers that are stable during unfilled storage. As such, Applicants respectfully submit that claims 1-3, 5-21, 26, 31, and 32 are in compliance with the written description requirement. Reconsideration and notice to that effect is respectfully requested.

II. 35 U.S.C. 112, Second Paragraph

Dependant claim 20 stands rejected under 35 U.S.C. 112, second paragraph, as being indefinite for reciting a polyethylene terephthalate of claim 1 which does not appear in claim 1. Claim 20 is amended to replace the term “polyethylene terephthalate” with the term “base polyester,” thereby reconciling claim 20 with claim 1. Applicants respectfully submit that claim 20 is now in condition for allowance.

III. 35 U.S.C. 103

A. Collette

Claims 1-4, 6-15, 17-21, and 25-32 stand rejected under 35 U.S.C. 103(a) as being obvious over U.S. 5,759,653 (“Collette”).

1. Independent Claim 1

The Office Action at pages 3 and 4 asserts that Collette teaches all of the features of claim 1, with the exception that the instant plastic container is “stable during unfilled storage.” The Office Action, however, argues that Collette teaches storage conditions which would improve the stability of the container.

Applicants respectfully submit that Collette does not teach, nor suggest, a method for forming a plastic container that is stable during unfilled storage and has a barrier layer with an oxygen-scavenging property that is activated after filling the container with an aqueous fluid.¹ Instead, Collette discloses an oxygen scavenger layer that has been activated before the plastic container is filled with product (see, e.g., C6L51-54; Summary at paragraph 4, sentence 2 (“P4S2”); C7L17-28; Summary at P5S4; C8L57-62).² Collette presumably desires accelerated activation to avoid the costly aging processes required to achieve activation for certain conventional oxygen barrier systems prior to filling, which are detailed by Collette in the Background Section (see, e.g., C2L13-21). Because the Collette oxygen scavenger layer is activated before filling, Collette teaches that steps (e.g., refrigeration, dessication, storage under a modified atmosphere, and/or use of EVOH shielding layers) must be taken to avoid depletion of the activated scavenging layer prior to use.

The Office Action wrongly asserts that the oxygen-scavenging properties of the Collette containers are activated after filling and mischaracterizes the teachings of Collette with respect to activation. None of the passages cited by the Office Action, when read in proper context, teach or suggest a method for producing a plastic container that has a barrier layer with an oxygen scavenging property that is activated after filling.

In asserting that the Collette process activates by filling with liquids, the Office Action at page 11 states:

“Collette teaches (Col. 5) that the materials are dried and preserved from activation of the catalyst (5:15-25). The catalysts may be activated by heat or water, and the containers of Collette are “hot-fill” (7:61). They are

¹ Applicants incorporate by reference the arguments presented in the Amendments dated August 14, 2006 and February 21, 2007.

² Exactly how the Collette material was activated is unclear, though the fact that it was activated before filling is undisputed. Several possible mechanisms of activation are disclosed or suggested in Collette, including, (i) the incorporation of post consumer polyethylene terephthalate (“PC-PET”) “in an amount effective to accelerate activation of the oxygen scavenger” (see, e.g., Summary at P2S1 and claim 1), (ii) the addition of water such as might be introduced via the masterbatch (which may have a moisture content above 2,500 ppm – see C5L27-28) and/or (iii) the inclusion of high levels of catalyst in the masterbatch (i.e., 3,000-6,500 ppm of metal catalyst are included in the masterbatch – see Summary at P4S4 and claim 26).

protected until the container is filled with a liquid product containing water (8:60-63).”

Applicants respectfully traverse the above Office Action argument, which mischaracterizes the teaching of Collette with respect to activation and ignores that the barrier layer of the Collette container is already activated before filling.

The first sentence of the argument cites portions of Collette relating to the condition of materials at the beginning stages of the Collette process and is irrelevant.

Regarding the second sentence of the argument, it is immaterial whether the containers of Collette are “hot-fill” since the barrier layer of the Collette container is already activated prior to filling. Furthermore, whether the catalyst of the Collette barrier layer is activated by heat or water is also irrelevant since there is no disclosure in Collette of any method for forming a container having a barrier layer that is not activated prior to filling.

The Collette passage cited in third sentence of the argument discloses unambiguously that the unfilled container has already been activated and seeks to prevent depletion of the activated barrier layer. The full text can be read starting at line 57, where it states that “[i]n an initial unfilled state, the five-layer container sidewall provides a high barrier to oxygen transmission based on the two intermediate [EVOH] layers, which essentially protect the oxygen scavenging core layer from depletion prior to product filling.” (Emphasis added.)

As an alternate 35 U.S.C. 103 argument, the Office Action at page 11 asserts that “even if Applicants’ arguments are correct in characterizing the Collette reference [as teaching that activation is performed before filling], the claimed order of steps may be characterized as a rearrangement of process steps already disclosed by the prior art. Rearrangement of process steps disclosed by the prior art is generally deemed to be *prima facie* obvious in the absence of unexpected results.”

Applicants respectfully traverse the assertion that the claimed invention is *prima facie* obvious in view of Collette. Independent claim 1 is directed towards methods for making a plastic container that is different from the plastic container of Collette. In

concluding that the claimed invention is merely a rearrangement of the process steps of Collette, the Office Action has not given any patentable weight to clause (f), which recites specific characteristics of the resulting plastic container. Such treatment of claim 1 is inappropriate since product limitations included in process claims must be afforded full consideration as material claim limitations.³ Thus, a case of *prima facie* obviousness has not been established by merely alleging a rearrangement of process steps.

For the above reasons, Applicants respectfully submit that independent claim 1, and claims 2-3, 5-21, and 25-26 which depend therefrom, are accordingly in condition for allowance.

2. Independent Claim 27

Independent claim 27 recites a method for producing a plastic container having a barrier layer that is formed from an admixture that consists essentially of the preblend and a virgin bottle grade base polyester. Claim 27 stands rejected as being obvious in view of Collette. While the Office Action on page 7 concedes that "Collette does not explicitly teach (a) the admixture consists essentially of the preblend and virgin bottle grade polyester, or (b) the permeability change achieved by filling with water," it asserts that these features would have been *prima facie* obvious. It is immaterial whether Collette teaches an admixture as recited in claim 27 since Collette teaches activation of the barrier layer before filling and does not disclose any method for forming a container having a barrier layer with an oxygen-scavenging property that is activated after filling. Because the Collette container is activated before filling, it would not exhibit the features of clause (f). Thus, Applicants respectfully submit that claims 27 and 28 (which depends from claim 27) are in conditions for allowance. Reconsideration and notice to this effect is respectfully requested.

3. Independent Claim 31

Applicants respectfully traverse the Office Action's assertion that, based on the teachings of Collette, it would be *prima facie* obvious to produce a monolayer container

³ See, e.g., MPEP 2116.01, which states that "proper claim construction requires treating language in a process claim which recites the making or using of a nonobvious product as a material limitation." See also Official Gazette notice published on March 26, 1996 and entitled "Guidance on Treatment of Product and Process Claims in Light of *In Re Brouwer* and in *Re Ochiai* and 35 U.S.C. 103(b)."

as recited in claim 31.⁴ Even if Collette were to provide motivation to make a monolayer container using the process of Collette (which it does not), the resulting monolayer container would already be activated before filling.

B. Nilsson in View of Collette

Claim 31 also stands rejected as being obvious over the combination of Nilsson in view of Collette. The Office Action asserts that Nilsson discloses all of the features of claim 31, but is silent to the preblend process of step (a) and mixing the preblend with the base polyester. The Office Action, however, asserts that it would have been prima facie obvious to one of ordinary skill in the art to incorporate the method of Collette into that of Nilsson to achieve improved mixing of the constituent materials. Applicants respectfully traverse this assertion.

Neither Collette nor Nilsson teaches or suggests a container having a barrier layer with an oxygen-scavenging property that is activated after filling. As discussed above, Collette teaches activation of the barrier layer before filling. Likewise, as acknowledged in the Office Action, Nilsson teaches aging the container in an unfilled state to achieve activation of the containers oxygen-scavenging properties before filling. Thus, Applicants respectfully submit that claims 31 and 32 (which depends from claim 31) are in conditions for allowance. Reconsideration and notice to this effect is respectfully requested.

CONCLUSION

In view of the foregoing, claims 1-3, 5-21, and 25-32 are in condition for allowance. Reconsideration and prompt allowance of all pending claims is respectfully requested. The Commissioner is authorized to charge any additional fees associated with this paper or credit any overpayment to Deposit Account No. 50-2070.

⁴ In fact, Collette *teaches against* making a monolayer container and, rather, teaches employing multilayer container designs to protect food products from contacting contaminants present in the recycled PC-PET of the core scavenging layer. (See, e.g., Summary at P3S3, C8L26-28, C9L37-38, C9L49-50.)

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